



# The Commonwealth of Massachusetts

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## DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 09-03-A

August 20, 2009

Investigation by the Department of Public Utilities to Develop Tariffs Governing Net Metering Under An Act Relative to Green Communities, St. 2008, c. 169, § 78.

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ORDER ADOPTING MODEL NET METERING TARIFF

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## I. INTRODUCTION

On March 6, 2009, the Department of Public Utilities (“Department”) issued an Order opening an investigation into tariffs that would, in conjunction with regulations, govern net metering as envisioned in § 78 of Chapter 169 of the Acts of 2008, an Act Relative to Green Communities (“Green Communities Act”). Order Opening Investigation, D.P.U. 09-03 (2009). On June 26, 2009, the Department issued an Order adopting final net metering regulations, promulgated at 220 C.M.R. § 18.00. Order Adopting Final Regulations, D.P.U. 08-75-A (2009). With this Order, the Department approves a model net metering tariff<sup>1</sup> and revisions to the Model Tariff to Accompany Standards for Interconnecting Distributed Generation (“Model Interconnection Tariff”).<sup>2</sup> These tariffs will, in conjunction with the net metering regulations adopted in D.P.U. 08-75-A, govern the provision of net metering services pursuant to G.L. c. 164, §§ 138-142.

## II. PROCEDURAL HISTORY

On March 27, 2009, Fitchburg Gas and Electric Light Company, d/b/a Unitil (“Unitil”), Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid (“National Grid”), NSTAR Electric Company (“NSTAR”), and Western Massachusetts Electric Company (“WMECo”) (together, the “Distribution Companies”) submitted to the Department a proposed model net metering tariff in compliance with the Department’s

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<sup>1</sup> The model net metering tariff is attached to this Order as Appendix A.

<sup>2</sup> The revised Model Interconnection Tariff is attached to this Order as Appendix B. The initial Model Interconnection Tariff was issued by the Department on February 24, 2004. Order On Model Distributed Generation Interconnection Standards And Procedures Tariff, D.T.E. 02-38-B (2004).

directive in D.P.U. 09-03. On April 7, 2009, the Department held a technical conference to discuss the proposed model net metering tariff. On April 17, 2009, the Distribution Companies filed a revised, proposed model net metering tariff and a proposed application for net metering services entitled “Schedule Z” to accompany the Model Interconnection Tariff (“Schedule Z”).<sup>3</sup> On June 2, 2009, the Department held a second technical conference to discuss the revised, proposed model net metering tariff and proposed Schedule Z.

On June 10, 2009, the Distribution Companies submitted a second revised, proposed model net metering tariff and proposed revisions to the Model Interconnection Tariff needed to accommodate net metering. On June 11, 2009, the Department issued for comment a Department-proposed model net metering tariff and a Department-proposed Schedule Z, both of which suggested changes to the Companies’ proposals. Initial written comments were due on June 15, 2009.<sup>4</sup> Written reply comments were due on June 30, 2009.<sup>5</sup>

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<sup>3</sup> The final version of Schedule Z is appended to the Model Interconnection Tariff, which is attached to this Order as Appendix B.

<sup>4</sup> The following ten commenters submitted initial written comments: (1) the Attorney General of the Commonwealth (“Attorney General”); (2) Boreal Renewable Energy Development (“Boreal”); (3) Cape & Vineyard Electric Cooperative, Inc. (“CVEC”) together with the Cape Light Compact (“Compact”); (4) Department of Agricultural Resources (“DAR”); (5) Department of Energy Resources (“DOER”); (6) Town of Falmouth Energy Committee (“Falmouth Energy”); (7) Massachusetts Net Metering Coalition; (8) National Grid; (9) Sustainable Energy Developments, Inc.; and (10) Town of Wellfleet Energy Committee (“Wellfleet Energy”).

<sup>5</sup> The following 15 commenters submitted written reply comments: (1) Attorney General; (2) Boreal; (3) CVEC together with the Compact; (4) DOER; (5) Energy Consumers Alliance of New England d/b/a Massachusetts Energy Consumers Alliance; (6) Falmouth Energy; (7) Unitil; (8) Interstate Renewable Energy Council (“IREC”); (9) National Grid; (10) Nexamp; (11) NOTUS Clean Energy, LLC; (12) NSTAR;

On July 16, 2009, the Department issued for consideration a revised, Department-proposed model net metering tariff and Schedule Z. On July 21, 2009, the Department held a third technical conference to discuss the Department's proposed revisions to the model net metering tariff and Schedule Z, and the Distribution Companies' proposed revisions to the Model Interconnection Tariff.

### III. SCOPE OF INVESTIGATION

#### A. Introduction

The Department stated that this investigation would provide an effective and efficient forum for engaging a diverse group of stakeholders in developing comprehensive terms and conditions that could apply uniformly to the Distribution Companies. D.P.U. 09-03, at 1-2. Through a broadly-represented stakeholder process, the Department hoped to reduce the areas of disagreement and identify terms and conditions that reflect consensus positions. Id. at 2. The goal is to develop a model net metering tariff that would, to the maximum extent possible, result in conforming company tariffs that are the same for customers across the Commonwealth. Id. at 2.

#### B. Stakeholder Process

Due to the tireless efforts of stakeholders throughout this proceeding, the Department is able to adopt tariffs that will allow net metering to be implemented in Massachusetts in an appropriate manner consistent with the Green Communities Act. The Department appreciates

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(13) Solar Energy Business Association of New England ("SEBANE"); (14) Wellfleet Energy; and (15) WMECo. Wellfleet Energy also filed a second set of reply comments.

the time, commitment of resources, careful consideration, and thoughtful comments provided by participants in analyzing the issues large and small. The Department especially appreciates the willingness of participants to consider opposing arguments and work toward compromise. This participation has enabled the Department to develop comprehensive terms and conditions that will facilitate the implementation of net metering.

C. Overview

In adopting a model net metering tariff and approving revisions to the Model Interconnection Tariff, the Department seeks to provide clarity, guidance and uniformity to Distribution Companies, Customers,<sup>6</sup> renewable energy developers, and other stakeholders regarding the process for receiving Net Metering services pursuant to § 78 of the Green Communities Act. The Department has reviewed the model net metering tariff and the revisions to the Model Interconnection Tariff to determine whether they appropriately implement the net metering provisions of the Green Communities Act. In addition, the Department has reviewed the tariffs to determine whether they are consistent with applicable law, Department precedent, and the public interest. Order On Model Distributed Generation Interconnection Standards And Procedures Tariff, D.T.E. 02-38-B at 5-6 (2004), citing Street Restoration Standards, D.T.E. 98-22, at 4 (1999); The Berkshire Gas Company, D.P.U. 96-92, at 8 (1996); Boston Gas Company, D.P.U 96-50 (Phase I) at 7 (1996);

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<sup>6</sup> Unless the context otherwise requires, capitalized terms used in this Order have the meanings provided in 220 C.M.R. §§ 18.00 et seq.

Massachusetts Electric Company, D.P.U. 96-59, at 7 (1996). We discuss below the issues that we have determined require explanation.

#### IV. MODEL NET METERING TARIFF

##### A. Allocation of Net Metering Credits

##### 1. Introduction

In the net metering tariffs proposed by the Distribution Companies, Host Customers (not Distribution Companies) were responsible for allocating Net Metering Credits.<sup>7</sup> The Distribution Companies proposed to apply Net Metering Credits to the Host Customer's account or to make a monetary payment for the value of the credit to the Host Customer. The Host Customer would then be responsible for allocating credits to eligible Customers.<sup>8</sup> In opposing an allocation requirement, the Distribution Companies stated, among other things, that it would be administratively burdensome and costly.<sup>9</sup> The Distribution Companies

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<sup>7</sup> The model net metering tariff defines Net Metering Credit as “the monetary value of the excess electricity generated by a Net Metering facility, calculated pursuant to Section 1.06 [of this tariff].” See Appendix A, § 1.01.

<sup>8</sup> In this instance, the term “eligible Customers” refers to Customers that are located in the same Distribution Company service territory and ISO New England Inc. load zone as the Host Customer. 220 C.M.R. § 18.05.

<sup>9</sup> D.P.U. 08-75-A at 8-9. The administrative burden and costs associated with the allocation of credits include modifications to the billing systems, management of the Customer information data base, and managing Customer inquiries and disputes regarding the credits. Id. at 8 n.12.

asserted that paying Host Customers for the value of the Net Metering Credits would reduce the costs and burden associated with allocation.<sup>10</sup>

In D.P.U. 08-75-A, the Department determined that the Green Communities Act requires the Distribution Companies to allocate Net Metering Credits to eligible Customers, as designated by a Host Customer.<sup>11</sup> The Department also determined that the only exception to allocation is for Class III Net Metering Facilities, in which case the Distribution Company may choose to purchase the Net Metering Credits rather than allocating them. D.P.U. 08-75-A at 10. Nevertheless, the Department stated that it would explore, in the instant proceeding, suggestions to minimize the administrative burden associated with allocation by, for example, limiting the number of Customers to whom credits may be allocated. Id. at 8-9 & n.13.

Accordingly, on June 11, 2009, the Department proposed a model net metering tariff that established limits on the number of Customers to whom Host Customers could allocate Net Metering Credits.<sup>12</sup> On July 16, 2009, following the receipt of written comments, the Department issued for purposes of discussion at a technical conference a revised net metering

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<sup>10</sup> D.P.U. 08-75-A at 8. Although the Green Communities Act allows Distribution Companies to issue checks to Class III Net Metering Facilities for Net Metering Credits, the Distribution Companies asserted that nothing prohibited them from similarly issuing checks to Class I or II Net Metering Facilities for their Net Metering Credits. Id. at 8 n.11.

<sup>11</sup> D.P.U. 08-75-A at 9-10, citing G. L. c. 164, §§ 139(a)(1), 139(b)(1). The allocation requirement is contained in 220 C.M.R. § 18.05.

<sup>12</sup> Specifically, the Department proposed to limit the number of allocation designees to: (1) five customers for Class I Net Metering Facilities; (2) ten customers for Class II Net Metering Facilities; and (3) 50 customers for Class III Net Metering Facilities. There was no proposed designee limit for Neighborhood Net Metering Facilities.



tariff that removed limitations on allocation. On July 21, 2009, the Department held a technical conference during which participants discussed the issue of allocating Net Metering Credits.

## 2. Positions of the Parties

The Distribution Companies and IREC support the imposition of limits on the number of Customers to whom Host Customers may allocate Net Metering Credits (National Grid Initial Comments at 1; WMECo Comments at 1-2; Unitil Comments at 1; NSTAR Reply Comments at 3; IREC Comments at 2). The Distribution Companies assert that allocating Net Metering Credits will be a significant expense because their billing systems cannot currently accommodate allocation and therefore the allocation must be done manually (National Grid Initial Comments at 1; WMECo Comments at 1-2; Unitil Comments at 1; NSTAR Reply Comments at 2-3).<sup>13</sup> The Distribution Companies anticipate that allocation will require the hiring of additional full-time staff to handle the manual accounting of allocation and eventually a change to the billing system to provide for automatic allocation (National Grid Initial Comments at 1; Unitil Comments at 1; NSTAR Reply Comments at 2-3).<sup>14</sup>

To mitigate costs associated with the allocation of Net Metering Credits, the Distribution Companies request that the Department impose even tighter restrictions on the number of designees for all net metering facilities than those proposed on June 11, 2009

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<sup>13</sup> NSTAR contends that the costs of these manual transactions will be several hundred thousand dollars annually (NSTAR Reply Comments at 2-3).

<sup>14</sup> NSTAR states that upgrades to its billing system to accommodate allocation would cost approximately \$2.8 million (NSTAR Reply Comments at 3).

(National Grid Initial Comments at 1-2; NSTAR Reply Comments at 3; Unitil Comments at 1; WMECo Comments at 1-2). In addition, NSTAR contends that Host Customers should pay for the administrative and billing costs associated with net metering up to the exogenous cost trigger outlined in NSTAR Electric, D.T.E. 05-85 (NSTAR Reply Comments at 3). Similarly, Falmouth Energy suggests that Distribution Companies should charge a modest fee for allocation services, something less than the current customer charge (Falmouth Energy Reply Comments at 1).

Other commenters oppose restrictions on the allocation of Net Metering Credits, contending they exceed the statutory authority of the Green Communities Act (CVEC/Compact Reply Comments at 2; DOER Initial Comments at 1; DOER Reply Comments at 1; DAR Initial Comments at 1; Falmouth Energy Reply Comments at 1; Wellfleet Energy First Reply Comments at 1). DOER also opposes allocation restrictions on Class III Net Metering Facilities as unnecessary because the Distribution Companies may, at their sole discretion, choose to issue a check rather than allocate credits (DOER Reply Comments at 1-2). If the Department maintains allocation restrictions, commenters argue that they should be much broader than those proposed on June 11, 2009 and should apply to customers and not individual accounts (CVEC/Compact Reply Comments at 2-3; Falmouth Energy Reply Comments at 1).<sup>15</sup>

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<sup>15</sup> CVEC and the Compact state that some municipal customers have hundreds of individual accounts (CVEC/Compact Reply Comments at 2-3). If allocation is limited to accounts, they argue that allocation of credits to municipal customers may be too limited to be useful or effective, which would be contrary to the intent of the Green Communities Act (id. at 3).

The Attorney General observes that not allowing Distribution Companies to buy Net Metering Credits from Class I and II Net Metering Facilities is a significant departure from previous drafts of the model net metering tariff (Attorney General Initial Comments at 3-4). The Attorney General contends that allocation of Net Metering Credits by the Distribution Companies could result in potentially significant administrative and information technology costs being passed on to ratepayers (id. at 4). The Attorney General argues that ratepayers should not have to bear the burden of paying costs associated with tracking, carrying forward and allocating credits when it would be more efficient and inexpensive to allow payments (id.).

### 3. Analysis and Findings

The model net metering tariff we adopt today contains no restrictions on the number of allocations of Net Metering Credits a Host Customer may designate. Although the Department recognizes that Distribution Companies may incur costs associated with the allocation of Net Metering Credits, we find that there is not sufficient certainty at this time as to the potential scale and scope of these costs to warrant restrictions on the number of allocations. In particular, we cannot predict with any certainty how many Host Customers will request allocation or how many Customers the Host Customers will designate if they opt for allocation. In the absence of such information, the Department cannot anticipate the extent or type of administrative costs necessary to accommodate such allocation. For these reasons, we decline at this time to impose limitations on the number of allocations of Net Metering Credits a Host Customer may designate.

The model net metering tariff we adopt today likewise contains no mechanism by which Distribution Companies may recover costs associated with the allocation of Net Metering Credits. Although the issue of cost recovery was discussed during this proceeding, there was disagreement about who should pay for these costs and thus how they should be recovered. As discussed above, however, the underlying uncertainty about the extent of these costs persuades us that it would be premature to consider a cost recovery mechanism at this time. So that we might have better data available for future consideration of a possible cost recovery mechanism, we direct the Distribution Companies to track any incremental costs associated with the allocation of Net Metering Credits and report back to the Department no more than one year after the effective date of their individual conforming net metering tariff.<sup>16</sup>

B. Metering and Reporting of Generation

1. Introduction

In D.P.U. 08-75-A at 6-7, the Department concluded that the output of all net metering facilities must flow through a Host Customer's meter.<sup>17</sup> In this proceeding, the focus of discussion and comments was the need for a second meter to measure the electricity generated by net metering facilities. Total generation data is necessary for Distribution Companies to calculate the distribution revenue lost as a result of Net Metering, which the Green

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<sup>16</sup> Such data may better position the Department to consider a possible cost recovery mechanism, including but not limited to whether Host Customers and those Customers who receive allocated Net Metering Credits should pay a customer charge for such service.

<sup>17</sup> This requirement is contained in 220 C.M.R. § 18.02 (definition of Host Customer) and § 18.03(3) (meter on Host Customer's consumption is needed to calculate Net Metering Credits).

Communities Act allows them to recover from Customers. G. L. c. 164, § 139(c); 220 C.M.R. § 18.09(4).<sup>18</sup>

In considering how to measure total generation, the participants discussed the advantages and disadvantages of metering or estimating generation, reporting requirements, costs associated with reading and installing generation meters and who should bear them, and the impact of decoupling. Ultimately, there was consensus among a broadly represented group of stakeholders that Class II and III Net Metering Facilities should install revenue-grade meters at the Host Customer's expense. In addition, there was consensus that inverter<sup>19</sup> data should be used to derive the revenues displaced by Class I Net Metering Facilities and, if such information was not available, that the generation should be estimated using the best available data.

## 2. Positions of the Parties

The Attorney General asserts that all net metering facilities should be required to have revenue-grade meters<sup>20</sup> to record total generation (Attorney General Initial Comments at 3; Attorney General Reply Comments, Att. B at 3-4).<sup>21</sup> She reasons that meters will allow for the

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<sup>18</sup> The Distribution Companies proposed to recover these lost revenues as part of the Net Metering Recovery Surcharge, which we discuss subsequently. See infra section IV.C.

<sup>19</sup> An inverter is a device that changes direct current power at its input to alternating current at its output. For example, the inverter is the link between the solar modules and the electricity grid in solar generating facilities.

<sup>20</sup> A revenue-grade meter is one that meets the accuracy requirements of the Model Interconnection Tariff. See Appendix B, § 8.1.

<sup>21</sup> Falmouth Energy agrees that the Department should require meters for Class I Net Metering Facilities, but suggests requiring meters that are less expensive than

accurate calculation of Net Metering Credits and lost revenues, thus ensuring that ratepayers subsidize actual, not estimated, net metering costs (Attorney General Initial Comments at 2-3; Attorney General Reply Comments, Att. A). In addition, she asserts that meters are necessary to enable net metering facilities to sell Renewable Energy Certificates (“RECs”), which should be sold to the Distribution Companies and used to offset the net metering costs to be recovered from Customers (Attorney General Initial Comments at 3). The Attorney General states, however, that ratepayers should not have to pay for these meters (Attorney General Initial Comments at 2).

WMECo disagrees with the Attorney General, asserting that requiring meters for Class II and III Net Metering Facilities represents a consensus position “after careful consideration of all the issues surrounding metering functionality and should not be modified” (WMECo Comments at 2). National Grid argues that additional metering and reporting requirements for smaller systems would be an undue burden on those Customers (National Grid Reply Comments at 2). DAR contends that if the Host Customer does not install a generation meter for other purposes, the Distribution Companies should pay for generation meters without ratepayer compensation (DAR Initial Comments at 1).

IREC supports the use of inverter readings to estimate the output of Class I Net Metering Facilities, arguing such an approach is consistent with the Green Community Act’s prohibition against additional fees and costs for such systems (IREC Comments at 2). In the

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revenue-grade meters (Falmouth Energy Reply Comments at 1). Falmouth Energy maintains that the less expensive meters would be much more accurate than estimated output (*id.*).

absence of inverter or similar data, National Grid suggests that estimates be calculated on a case-by-case basis with the best available data for all Class I Net Metering Facilities (National Grid Initial Comments at 2-3).<sup>22</sup>

### 3. Analysis and Findings

The model net metering tariff we adopt today requires Host Customers with Class II and III Net Metering Facilities to install at their expense revenue-grade meters to measure kilowatt-hour (“kWh”) output. We agree that requiring meters for all classes of net metering facilities would allow for an accurate calculation of the revenues lost as the result of net metering.<sup>23</sup> Nevertheless, we are not persuaded that the installation of a generation meter on Class I Net Metering Facilities would result in incrementally accurate generation data sufficient to justify the added expense of a meter on these smaller systems.

It may be that only a small number of Class I Net Metering Facilities have unmetered generation. We anticipate that many Class I Net Metering Facilities will install generation meters so that they may pursue revenue streams associated with the renewable and

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<sup>22</sup> On June 11, 2009, the Department proposed a net metering tariff that specified the means of estimating the generation of wind and solar net metering facilities, but left nonrenewable technologies to be calculated on a case-by-case basis.

<sup>23</sup> Net Metering Credits will be calculated based upon readings of the meter that measures a Host Customer’s consumption of electricity (i.e., retail meter). Net Metering Credits are calculated only when a net metering facility’s generation exceeds a Host Customer’s consumption of electricity as measured through the retail meter. D.P.U. 08-75-A at 6, citing 220 C.M.R. § 18.03(3). Accordingly, meters to record total generation are not necessary for the accurate calculation of Net Metering Credits.

environmental attributes of their systems.<sup>24</sup> We are nevertheless reluctant to require any net metering facility to participate in the REC or other similar markets at this time because, as discussed below, Host Customers may have reason not to participate in these markets.<sup>25</sup>

In addition, we expect that metering of generation to enable Distribution Companies to calculate revenues displaced by net metering facilities for recovery from Customers may be a short-term issue. We anticipate that this calculation will be unnecessary to the extent that Distribution Companies decouple their sales from their revenues. A decoupling mechanism could separate a distribution company's revenues from all changes in consumption, regardless of the underlying cause of the changes. Investigation into Rate Structures that will Promote Efficient Deployment of Demand Resources, 07-50-A, at 31 (2008). Pursuant to a decoupling mechanism, a distribution company could be allowed a specified annual revenue requirement, whereby, to the extent the Distribution Company has undercollected, it would be allowed to recover its target revenues without regard to whether sales decreased because of the deployment of net metering facilities or other demand resources (*i.e.*, energy efficiency, demand response, and combined heat and power). See Investigation into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-50, at 1, 4, 14-16 (2007). If such a mechanism is implemented for a Distribution Company, it may not need to

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<sup>24</sup> For this reason, we find that requiring Host Customers with Class II and III Net Metering Facilities to install generation meters at their expense is not an undue burden. It is probable that these larger facilities will participate in the REC market, which will require the installation of a generation meter.

<sup>25</sup> See infra Section IV.D (discussing RECs).



know the amount of kWh generated by net metering facilities because any displaced revenues would be captured in the annual decoupling reconciliation. Since we anticipate that all Distribution Companies will file a decoupling rate proposal by December 2012, the metering of generation for purposes of determining displaced revenue could diminish in importance or become irrelevant for the purposes of calculating displaced revenues.

For all these reasons, we conclude that requiring generation meters for Class II and III Net Metering Facilities and using estimated generation for Class I Net Metering Facilities where metered data is unavailable strikes an appropriate balance between protecting customers and minimizing costs to Host Customers.

C. Net Metering Recovery Surcharge

1. Introduction

In addition to distribution revenue lost as a result of Net Metering, the Green Communities Act allows Distribution Companies to recover the Net Metering Credits they are required to pay for excess generation. G. L. c. 164, § 139(c); 220 C.M.R. § 18.09(4).<sup>26</sup> To calculate and recover these costs, the Distribution Companies proposed in their model net metering tariff a formula entitled the Net Metering Recovery Surcharge (“NMRS.”) The NMRS as proposed by the Distribution Companies is based on a prospective approach, relying upon forecasts for the upcoming year of the Net Metering Credits to be paid and the non-

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<sup>26</sup> Distribution Companies may recover “the aggregate of the distribution portion of any Class I, II, or III Net Metering credits and the Distribution Company delivery charges displaced by a Class I, II or III Net Metering Facility through a uniform per kilowatt-hour surcharge or surcharges billed to all of its Customers on an annual basis.” 220 C.M.R. § 18.09(4).

reconciling distribution portion of revenue to be displaced by net metering facilities. In addition, the proposed NMRS is designed to recover the reconciling components of Net Metering Credits through the usual annual reconciliation processes in place for such charges. The proposed NMRS will apply any energy market payments received from ISO New England Inc. (“ISO-NE”) for the electricity generated by Class II or III Net Metering Facilities in the company’s annual reconciliation of default service costs. These issues and the NMRS in general were discussed at the three technical sessions and various modifications were suggested in the Department-proposed net metering tariffs.

## 2. Positions of the Parties

The Attorney General contends that the NMRS should be retrospective, using available actual data for both the Net Metering Credits paid and the displaced revenues (Attorney General Reply Comments, Att. A, Att. B at 7). To derive the revenues displaced by net metering in the absence of metered data, the Attorney General proposes that the Department review and approve any means of estimating output (Attorney General Reply Comments, Att. A, Att. B at 8). In addition, the Attorney General seeks to modify the NMRS to recover all Net Metering Credits paid to Customers, not just the non-reconciling distribution portion (Attorney General Reply Comments, Att. A, Att. B at 6).

In the absence of inverter or similar data, National Grid suggests that estimates for purposes of displaced revenues be calculated on a case-by-case basis with the best available

data for all Class I Net Metering Facilities (National Grid Initial Comments at 2).<sup>27</sup> National Grid also suggests that, in addition to energy revenues, Distribution Companies should have the right to capacity revenues associated with the excess electricity generated by Class II and III Net Metering Facilities (id. at 3). During the July 21, 2009 technical conference, participants discussed who should have the right to capacity payments from ISO-NE. Given the risks inherent in the Forward Capacity Market (“FCM”), the Distribution Companies were reluctant to be obligated to bid in the capacity. Others argued that Host Customers should have the opportunity to bid the capacity for their facility and obtain that revenue stream.

### 3. Analysis and Findings

The model net metering tariff we adopt today includes a NMRS that is retrospective in nature. We find that such an approach is consistent with other annual reconciliations and will better allow for the use of actual data. In addition, the NMRS we adopt requires the reconciliation of both the reconciling and non-reconciling components of Net Metering Credits. This should allow for greater transparency of the costs associated with net metering because they will all be included in the annual NMRS reconciliation rather than being split between the NMRS and the Distribution Company’s other annual reconciliation of costs.

The DDR component of the NMRS is designed to calculate the revenues displaced by the net metering facilities. Consistent with the metering requirements discussed above, the Distribution Companies are to use actual metered data from Class II and III Net Metering

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<sup>27</sup> On June 11, 2009, the Department proposed a net metering tariff that specified the means of estimating the generation of wind and solar net metering facilities, but left nonrenewable technologies to be calculated on a case-by-case basis.

Facilities in calculating DDR. For Class I Net Metering Facilities, the Distribution Companies are to use generation data from an inverter or similar device. If such information is unavailable, however, the tariff we adopt today allows the Distribution Company in the first instance to identify the appropriate means of estimating generation for purposes of DDR. During the annual NMRS reconciliation proceeding, there will be an opportunity for parties to comment on, and for the Department to investigate, the estimation methods used. Finally, for the reasons discussed above, the Department acknowledges that the DDR component of the NMRS could become obsolete once a Distribution Company implements a decoupling mechanism.

The net metering tariff that we adopt today requires Distribution Companies to apply any energy market payments received from ISO-NE for the electricity generated by Class II or III Net Metering Facilities in the company's annual NMRS reconciliation. The net metering tariff also allows, but does not require, Distribution Companies to bid the capacity of Class II and III Net Metering Facilities into the FCM. We find that it is appropriate for Distribution Companies to have the right to the energy and capacity payments for the purposes of reconciliation in the NMRS. First, the Distribution Companies will use those payments to offset the total NMRS to be recovered from Customers. Second, most Net Metering Credits are calculated using the default service charge, in which is embedded the costs of energy and capacity associated with generation. In other words, Host Customers receiving such credits are being compensated for the cost of energy and capacity.

We nevertheless do not require the Distribution Companies to obtain the revenue stream associated with capacity. We recognize the administrative difficulties of bidding the capacity of Class II and III Net Metering Facilities into the FCM. We also recognize the associated risks of bidding into a market three years in advance for generation that is owned and operated by third parties who are not contractually bound to the Distribution Company. We will therefore leave to the reasonable judgment of the Distribution Companies whether to seek to obtain these capacity payments. However, if a Distribution Company opts to bid such capacity into the FCM, it must declare its intent to seek capacity payments when a Host Customer applies for net metering services. In addition, the Distribution Company is then obligated to act in a commercially reasonable manner to obtain such capacity payments, which will be applied to offset any NMRS.

D. Renewable Energy and Environmental Attributes

1. Introduction

In D.P.U. 08-75-A at 22, the Department determined that Distribution Companies are not entitled, as the result of providing net metering services, to the renewable energy or environmental attributes associated with a net metering facility.<sup>28</sup> The net metering regulations do not, however, specify what – if anything – a Host Customer is required to do with RECs or other attributes. On April 17, 2009, the Distribution Companies proposed a model net metering tariff requiring all Class II and Class III Net-Metering Facilities to participate in the

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<sup>28</sup> This clarification is included in 220 C.M.R. § 18.09(1).

REC market in order to provide resources for Distribution Companies to meet existing and future Renewable Portfolio Standard (“RPS”) requirements.

2. Positions of the Parties

The Attorney General argues that “all net metering facilities should be required to sell [their] RECs in order to offset their investment and ratepayers should be able to receive the benefit of RECs by having [Distribution] Companies purchase them from net metering facilities” (Attorney General Initial Comments at 3). She reasons that “ratepayers should receive some relief through the purchase of net metering facilities’ RECs” because they are subsidizing net metering customers, and providing lost revenue recovery (*id.* at 3).

Many participants oppose any tariff provision that would require Host Customers to participate in the REC market or dispose of them in any particular way, especially to Distribution Companies (CVEC/Compact Initial Comments at 7-8; IREC Comments at 2; SED Comments at 2). They assert that there is no language in the Green Communities Act to support such requirements (CVEC/Compact Initial Comments at 9-10; IREC Comments at 2). They argue that RECs result from a Host Customer’s investment in renewable energy and that the Host Customer should have an unfettered right to dispose of RECs through retirement or sale or otherwise (CVEC/Compact Initial Comments at 7-10; IREC Comments at 2). As to RPS requirements, they contend that nothing in the Green Communities Act indicates that net metering should facilitate RPS compliance of Distribution Companies (CVEC/Compact Initial Comments at 9). They further assert that net metering RECs should be available to other

entities that have RPS requirements like competitive suppliers and to voluntary REC markets and programs (id.).

### 3. Analysis and Findings

The model net metering tariff we adopt today does not require Host Customers to participate in the REC market and does not otherwise restrict their disposal of RECs or other renewable or environmental attributes associated with the generation of their net metering facilities. We recognize that Host Customers, by receiving net metering services, will receive significant benefits as specified by the Green Communities Act. There is, however, no corresponding language in the Green Communities Act that supports requiring Host Customers to participate in the REC market by selling RECs to the Distribution Companies or any other entity. In addition, we recognize that the deployment of these renewable resources is an important part of mitigating the vulnerability of all customers to significant increases in energy commodity prices and preparing for a carbon-constrained energy industry. D.P.U. 07-50-A at 1-4. We therefore find no basis for regulating Host Customers' use of RECs. By leaving the decision to participate in markets to the Host Customers, we conclude that the model net metering tariff we adopt today appropriately balances the interests of Customers and Host Customers. In addition, we find that it will ensure that the Department's implementation of the net metering provisions of the Green Communities Act does not interfere with the development of markets associated with the renewable and environmental attributes of net metering facilities.

E. Queuing of Net Metering Applications

1. Introduction

In D.P.U. 08-75, at 20-21, the Department declined to address the issue of a queue in the net metering regulations. The Department instead decided to track participation and trends in net metering so that we may later ascertain whether adjustments such as queue requirements are necessary. Id.; 220 C.M.R. § 18.08. Throughout its various iterations, the model net metering tariff has been designed so that, provided a potential net metering facility has achieved administrative completion of the interconnection application,<sup>29</sup> it would be eligible for net metering if service under the tariff has not closed as a result of the aggregate of operating net metering facilities reaching the Distribution Company's one percent cap. 220 C.M.R. § 18.07; Appendix A, § 1.09. With each iteration, commenters have suggested that the Department regulate eligibility for net metering through a process that is separate and apart from the aggregate cap provisions of the net metering tariff and the relevant requirements of the interconnection tariff.

2. Positions of the Parties

The commenters argue that the Department, not Distribution Companies, should determine what projects are eligible for net metering (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5). Leaving eligibility to Distribution Companies through the interconnection process, they reason, will, contrary to the intent of the Green Communities

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<sup>29</sup> In order for a net metering facility to become operable, it must interconnect to a Distribution Company's electric distribution system. This interconnection process is governed by the Standards for Interconnecting Distributed Generation and the associated Interconnection Tariff approved by the Department.



Act, discourage projects that require net metering eligibility to obtain financing, add to the administrative burden of all the parties, and create problems in general (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5-7; CVEC/Compact Reply Comments at 4-5). They predict that queuing issues will ultimately need to be resolved by the Department (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5-7).

They explain that a successful queue process should include more milestones than just the interconnection application (Boreal Initial Comments at 2; CVEC/Compact Initial Comments at 5-6; Wellfleet Energy First Reply Comments at 2-3). They ask the Department to promulgate regulations to govern queue eligibility and placement and perhaps assign management of the queue to a third party (CVEC/Compact Reply Comments at 5-6, 8-9; DAR Initial Comments at 1).

### 3. Analysis and Findings

The model net metering tariff we adopt today makes no reference to the queuing of applications for net metering services. We stated in D.P.U. 08-75-A at 21, that the reporting provisions contained in the net metering regulations will provide the Department and stakeholders with sufficient information to monitor the development of net metering within the requirements and limitations of the Green Communities Act. Despite the participants' thoughtful analysis of the queuing issues, we remain convinced that the reporting requirements adopted in D.P.U. 08-75-A represent a reasonable approach at this time for regulating the deployment of net metering facilities.

F. Dispute Resolution

The model net metering tariff we adopt today incorporates by reference the comprehensive dispute resolution provisions of the Model Interconnection Tariff. During the development of the model tariff, the Distribution Companies asserted that Host Customers, and not Distribution Companies, should be responsible for resolving disputes associated with the allocation of Net Metering Credits (National Grid Initial Comments at 1-2; WMECo Comments at 1-2; Unitil Comments at 1). We agree. As adopted today, the model net metering tariff clarifies that Distribution Companies are not responsible for resolving disputes between Host Customers and those to whom they are allocating Net Metering Credits.<sup>30</sup>

V. MODEL INTERCONNECTION TARIFF

A. Net Metering Application “Schedule Z”

To apply for net metering services, a Host Customer must complete Schedule Z as part of completing its interconnection application. The purpose of Schedule Z is to obtain information from the Host Customer sufficient for the Distribution Company to determine eligibility for net metering and, upon interconnection, to provide net metering services. The purpose of Schedule Z is also to provide certain information to Host Customers so that they may obtain financing and make other business decisions as early in the interconnection process as possible. For example, within 30 days of the filing of Schedule Z, the Distribution Company must notify the Host Customer of a Class III Net Metering Facility whether it will purchase the Host Customer’s Net Metering Credits or allocate them. The Distribution

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<sup>30</sup> This clarification is contained in Appendix A, § 1.11.

Company must similarly notify Host Customers with Class II and III Net Metering Facilities whether it will seek to obtain capacity payments from ISO-NE for their electric generation.

There was vigorous discussion about the appropriate content of Schedule Z during the various technical conferences and in the comments. Schedule Z as adopted today represents in large part consensus among the stakeholders and we find it will appropriately allow for the implementation of net metering.

B. Revisions to the Model Interconnection Tariff

1. Introduction

During this proceeding, it became clear that, in order to facilitate the implementation of the net metering provisions of the Green Communities Act, the Model Interconnection Tariff would need to be revised. The technical conferences and comments focused primarily on revisions necessary to conform to 220 C.M.R. § 18.00 and 220 C.M.R. § 8.00, as revised.

2. Positions of the Parties

DOER states that two insurance provisions contained in the Model Interconnection Tariff will apply to net metering facilities and create unnecessary barriers to distributed generation in general and net metering facilities in particular (DOER Initial Comments at 2). DOER explains that one provision requires a Distribution Company to be an additional insured<sup>31</sup> and the other requires insurance for governmental entities<sup>32</sup> (id. at 3). As to the first,

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<sup>31</sup> DOER explains that section 11.2 of the Model Interconnection Tariff provides that “all insurance shall, (a) include Company as additional insured,” but also allows for a waiver of this requirement (DOER Initial Comments at 3).

<sup>32</sup> DOER states that the Massachusetts Tort Claims Act, G.L. c. 258, § 2, imposes a \$100,000 cap on damages in actions against governmental entities (DOER Initial

DOER asserts it creates needless and burdensome requirements for net metering customers and other distributed generation owners (id.). DOER argues that Distribution Companies are already well protected against the minimal risk that small renewable generation poses (id.). As to the second, DOER maintains that it creates barriers for governmental entities that would otherwise be eligible for net metering (id.). DOER contends that the Model Interconnection Tariff should instead adopt a special contract approach in which the Distribution Company assumes the risk and charge the governmental entity for doing so (id.). DOER explains that this approach has been effective in the past and is consistent with the Green Communities Act's directive to remove barriers to the development of renewables (id. at 3-4). In addition, DOER states it would avoid the necessity of creating a special contract every time an otherwise eligible governmental entity seeks interconnection (id. at 4).

WMECo and National Grid oppose DOER's proposed insurance revisions (National Grid Reply Comments at 1; WMECo Comments at 2). They state that, in their experience, these provisions have worked effectively and have not been unduly burdensome (National Grid Reply Comments at 1; WMECo Comments at 2). WMECo explains that "the insurance provisions in the interconnection tariff were the result of extensive negotiations and collaborative agreement by all parties in D.T.E. 02-38" (WMECo Comments at 2). NSTAR does not oppose DOER's proposed special contract approach so long as NSTAR is able to "to

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Comments at 3). Because of this cap, DOER explains, the Model Interconnection Tariff requires governmental entities to obtain insurance coverage prior to interconnection with a Distribution Company's distribution system in an amount higher than the damages cap (id.). DOER contends that the cost of such insurance creates barriers to the installation of net metering facilities (id.).

charge the governmental entity for such commercially available insurance” (NSTAR Reply Comments at 4).

### 3. Analysis and Findings

We stated that the purpose of this investigation is to develop a net metering tariff and changes to the interconnection tariff to implement the provision of net metering services pursuant to G.L. c. 164, §§ 138-142. D.P.U. 09-03, at 1. It was in this context that we reviewed the Model Interconnection Tariff to determine what changes would be necessary to accommodate the implementation of net metering. We recognize that the Model Interconnection Tariff resulted from a comprehensive, collaborative process. However, certain changes are necessary to conform the Model Interconnection Tariff to the net metering tariff and regulations. For example, definitions and Schedule Z have been added, the metering requirements revised, and certain citations relating to insurance updated. See Appendix B, §§ 1.2, 8.1, 11.1(b). Nevertheless, we decline to adopt the insurance changes suggested by DOER at this time. We recognize that the insurance provisions of the interconnection tariff could present barriers to the development of renewable generation that otherwise would be eligible for net metering, particularly in the case of such development by governmental entities. Accordingly, we encourage the Distribution Companies to continue to work with appropriate stakeholders to address any insurance coverage barriers for governmental entities.

## VI. CONCLUSION

The attached model net metering tariff and Model Interconnection Tariff shall serve as the basis for the Distribution Company filings with the Department. It is the Department’s

goal to achieve uniformity across the Commonwealth in the provision of net metering services. Distribution Companies therefore bear the burden of demonstrating the reasonableness of any proposed modifications to the model tariffs when submitting compliance tariffs. Each Distribution Company must file its proposed compliance tariffs with the Department for review no later than ten days following the issuance of this Order.

VII. ORDER

Accordingly, after due notice, opportunity for comment, and consideration it is

ORDERED: That the model net metering tariff, as appended to this Order, be and hereby is approved; and it is

FURTHER ORDERED: That no later than ten days following the issuance of this Order, Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company, and Western Massachusetts Electric Company shall submit individual net metering tariffs consistent with this Order; and it

FURTHER ORDERED: That the Model Tariff to Accompany Standards for Interconnecting Distributed Generation, as appended to this Order, be and hereby is approved; and it

FURTHER ORDERED: That no later than ten days following the issuance of this Order, Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company,

and Western Massachusetts Electric Company shall submit individual interconnection tariffs consistent with this Order; and it

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company, and Western Massachusetts Electric Company shall comply with all directives contained in this Order.

By Order of the Department,

\_\_\_\_\_/s/\_\_\_\_\_  
Paul J. Hibbard, Chairman

\_\_\_\_\_/s/\_\_\_\_\_  
Tim Woolf, Commissioner

\_\_\_\_\_/s/\_\_\_\_\_  
Jolette A. Westbrook, Commissioner